



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/826,299

04/19/2004

Sung-hi Lee

1349.1357

9802

21171 7590 01/05/2011

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SARPONG, AKWASI

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

01/05/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/826,299 | LEE, SUNG-HI | |
| | Examiner | Art Unit | |
| | AKWASI M. SARPONG | 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/13/2005 and 04/19/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/02/2010 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapin (2003/0231328) in view of Minamizawa (2002/0029314)

Chapin discloses a printing apparatus (**Fig. 1 shows computer 110, Network 120 and Printers (130-134)** NB: understand that a printing apparatus is any device that performs any operation in a printing process) to perform a printing operation by driving hardware provided thereto according to a printing command received from a user, (**Section 0014, - thus a user issues a command for printing from computer 110 to be printed in one of the printers 130-134**) comprising:

a firmware unit **(Portion of the PC that stores the multiple printer driver- please see Fig. 1 El. 100 and section 0020 lines 1-6)** to store function information of a plurality of printing apparatus_models, **(Section 0019, lines 4-6- thus multiple printer driver installed on the PC works on all the different models of printers that is connected)** supported by a common firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** of the printing apparatus and control the_printing apparatus_to selectively perform the function of one of the plurality of printing apparatus models **(Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of printer 6200 or 4400)** which corresponds to a model index designated by a manufacturer as the printing apparatus is initialized, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

Chapin does not disclose that the printer driver (firmware Unit) is located or installed in the printer (for example: Xerox Phaser 6200 and 4400).

However it will be obvious to one ordinary skilled in the art at the time the invention was made to download the printer driver which can be used in plurality of printers (For example: Xerox Phaser 6200 and 4400) in any of the printers as clearly taught by Minamizawa (Section 0058). The motivation is that it will make the printer very

Art Unit: 2625

portable and it will also reduce cost since just one universal driver is needed to be installed in the printers.

Claim 2, Chapin in view of Minamizawa discloses wherein the firmware unit comprises:

a storage unit (**Chapin: Portion of EI 100 that stores multiple printer driver-please see that Fig. 1 clearly shows that the multiple printer driver is stored in EI 100 in the PC**) to store the function information of the plurality of printing apparatus (**Chapin: Fig. 1 clearly shows that the multiple printer driver is stored in EI 100 in the PC**) models therein

a model index processing unit (**Controller 20 shown in fig. 2**) to store a model index designation command (**Chapin: Section 0016, lines 1-3- thus the controller analyzer sends the print job and user-specified print properties to the communication port 30**) received from outside the firmware unit, extract from the storage unit the function information which corresponds to the model index designated by the model index designation command upon the initialization of the printing apparatus, (**Chapin: Section 0015, lines 1-5- thus the controller determines which of the different models of printer best –equipped to perform the print job in accordance with the command designated and therefore the type of phaser information corresponds to the print command issue by the user**) and output the

extracted function information (Chapin **Section 0016, lines 1-4- thus the print job and user-specified print properties are send to the communications port 30)** and a firmware driving unit to control the hardware to receive the function information and perform a corresponding function. (Chapin: **Section 0017, lines 4-8- thus the translator 40 controls the drivers to convert the send print job together with the print parameters and preferences to corresponds to the commands send by the user).**

Claim 3, Chapin in view of Minamizawa discloses wherein the firmware unit further comprises a data receiving unit to receive data from outside the firmware unit, (Chapin **Section 0016, lines 13-14-the portion of Controller 20 that receives the information on how to print the job)** and transmit the model index designation command to the model index processing unit (Chapin **Controller 20 receives the print command together with the print specified information-please see section 0016 lines 12-14)** in response to the model index designation command being in the received data. (Chapin **Section 0016 lines 1-4- thus the controller 20 converts the received print data to correspond to the specified print information)**

a data processing unit (**translator 40 shown in Fig. 2)** to receive the data excluding the model index designation command from the data receiving unit, and convert the data into corresponding printer language (Chapin **Section 0017, lines 4-8- thus the translator converts the print data into a specified format)** and

a data printing unit to control the hardware to output the converted data onto a printing medium. **(Printers 130-134- prints the converted image data).**

Claim 4, Chapin in view of Minazawa discloses further comprising a developing unit and a fusing unit to output the converted data onto the printing medium, wherein the developing unit and the fusing unit are controlled by the data printing unit. (Chapin **Section 0021, lines 23-24- thus the printer finish printing and therefore has a developing unit and fusing unit that develops the image onto the medium for printing)**

Claim 5, Chapin in view of Minazawa discloses wherein the model index designation command is transmitted along with initialization files through a printer interface during the manufacturing of the printing apparatus, so that the model index designation command is processed upon the initialization of the printing apparatus. (Chapin: **t is Inherit at a printer's initialization, the model index shows up on the screen in most times in the case of Chapin will be Phaser 4400, 6200 and 7300 as clearly shown in Section 0019 lines 11-15)**

Claim 6, Chapin in view of Minazawa discloses wherein the model index designation command is transmitted in a separate command file that is transmitted through a printer interface to be processed by the firmware unit. (Chapin:**Section 0020, lines 2-8- thus each of the printers model index such as Xerox Phaser 4400 is**

separated from each other and therefore the multiple drivers controls each separately)

Claim 7, Chapin discloses a method of supporting a plurality of models of a printing apparatus by a common firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** the method comprising: confirming a model index designation command which designates a model index corresponding to one of the plurality of printing apparatus models, **(Section 0019, lines 11-15- thus the multiple printer driver is confirmed by installing the driver into that particular printer such as Phaser 4400 or 6400)** during a manufacturing operation **(Section 0019 lines 11-15-the manufacturer designates the specific driver for one printer – hence a driver that is used for printer 6200 is designated during manufacturing)**

extracting function information corresponding to the one of the plurality of printing apparatus models which is designated by the model index designation command **(Section 0020- thus since multiple printer Drivers controls more than one models of the printers such as Phaser 4400 and 6400, the software has to extract the exact model that the print job is been sent)** confirming a function of the designated model using the function information and performing the function, **(Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models.

Art Unit: 2625

(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)

Chapin does not disclose that the printer driver (firmware Unit) is located or installed in the printer (for example: Xerox Phaser 6200 and 4400).

However it will be obvious to one ordinary skilled in the art at the time the invention was made to download the printer driver which can be used in plurality of printers (For example: Xerox Phaser 6200 and 4400) in any of the printers as clearly taught by Minamizawa (Section 0058). The motivation is that it will make the printer very portable and it will also reduce cost since just one universal driver is needed to be installed in the printers.

Claim 8, Chapin in view of Minamizawa discloses further comprising inputting the model index designation command and storing the command in an initialization file and confirming the model index designation command by executing the initialization file.

(Chapin: Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program)

Claim 9, Chapin in view of Minamizawa discloses further comprising writing a separate file which stores therein the model index designation command storing the file in the printing apparatus through a printer interface; and confirming the model index designation command by executing the file. **(Chapin: Section 0020, lines 2-8- thus**

each of the printers model index such as Xerox Phaser 4400 is separated from each other and therefore the multiple drivers controls each separately)

Claim 10, Chapin in view of Minamizawa discloses wherein the function of a basic model that is previously set is performed in response to there being no function information corresponding to the designated model index. (Chapin: **Section 0020-lines 2-8- thus the user has to sent a specific information for a specified model such as 7400 or 6400 which will call for a special model index and therefore the basic program call for no information)**

Claim 11, Chapin discloses a firmware unit (**Portion of the PC that stores the multiple printer driver-please see Fig. 1 El. 100 and section 0020 lines 1-6**) of a printing apparatus to control the printing apparatus, wherein the firmware unit stores function information of a plurality of printing apparatus models, supported by a common firmware, (**multiple driver is configured to operate several different printers-please see section 0019, lines 4-6**) of the printing apparatus, and controls the printing apparatus according to the function information corresponding to the printing apparatus set at a time of manufacture (**Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15**) and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. (**Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400**).

Chapin does not disclose that the printer driver (firmware Unit) is located or installed in the printer (for example: Xerox Phaser 6200 and 4400).

However it will be obvious to one ordinary skilled in the art at the time the invention was made to download the printer driver which can be used in plurality of printers (For example: Xerox Phaser 6200 and 4400) in any of the printers as clearly taught by Minamizawa (Section 0058). The motivation is that it will make the printer very portable and it will also reduce cost since just one universal driver is needed to be installed in the printers.

Claim 12, Chapin discloses a firmware unit **(Portion of the PC that stores the multiple printer driver-please see Fig. 1 El. 100 and section 0020 lines 1-6)** to control a printing apparatus, wherein the firmware unit stores function information of a plurality of models of the printing apparatus, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** and controls the printing apparatus according to the function information corresponding to the printing apparatus, with a storage unit to store the function information of the plurality of models, supported by a common firmware, of the printing apparatus, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** further comprising a model index processing unit **(Controller 20 shown in fig. 2)** to store a model index designation command **(Section 0016, lines 1-3- thus the controller analyzer sends the print job and user-specified print properties to the communication port 30)** received from outside the firmware unit by a manufacturer,

Art Unit: 2625

extract the function information corresponding to a model index designated by the model index designation command, and output the extracted information and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0017, lines 4-8- thus the translator 40 controls the drivers to convert the send print job together with the print parameters and preferences to corresponds to the commands send by the user).**

Chapin does not disclose that the printer driver (firmware Unit) is located or installed in the printer (for example: Xerox Phaser 6200 and 4400).

However it will be obvious to one ordinary skilled in the art at the time the invention was made to download the printer driver which can be used in plurality of printers (For example: Xerox Phaser 6200 and 4400) in any of the printers as clearly taught by Minamizawa (Section 0058). The motivation is that it will make the printer very portable and it will also reduce cost since just one universal driver is needed to be installed in the printers.

Claim 13, (Cancelled).

Claim 14, Chapin in view of Minamizawa discloses further comprising a data receiving unit data receiving unit to receive data from outside the firmware unit, **(Chapin: Section 0016, lines 13-14-the portion of Controller 20 that receives the information on how to print the job)** and transmit the model index designation command to the model index processing unit **(Chapin: Controller 20 receives the**

print command together with the print specified information-please see section 0016 lines 12-14) in response to the model index designation command being in the received data. **(Chapin: Section 0016 lines 1-4- thus the controller 20 converts the received print data to correspond to the specified print information)**

Claim 15, Chapin in view of Minamizawa discloses further comprising a data processing unit **(Chapin: translator 40 shown in Fig. 2)** to receive the data excluding the model index designation command from the data receiving unit and convert the data into corresponding printer language. **(Chapin: Section 0017, lines 4-8- thus the translator converts the print data into a specified format).**

Claim 16, Chapin in view of Minamizawa discloses further comprising a data printing unit to control hardware of the printing apparatus to output the converted data onto a printing medium. **(Chapin: Printers 130-134- prints the converted image data).**

Claim 17, Chapin in view of Minamizawa discloses further comprising a firmware driving unit to control hardware of the printing apparatus to receive the function information and perform a corresponding function. **(Chapin: Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program).**

Claim 18, Chapin discloses a method of controlling a printing apparatus, the method comprising storing function information of a plurality of printing apparatus models, supported by a common firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** of the printing apparatus in the printing apparatus, designating a model from among the plurality of models at a time of manufacture, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and controlling the printing apparatus according to the function information corresponding to the printing apparatus **(Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of these printers)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

Claim 19-21 Cancelled) ,

Response to Arguments

Applicant's arguments filed 09/02/2010 have been fully considered but they are not persuasive..

Art Unit: 2625

a. Regarding independent Claims 1, applicant argues that the driver 100 of Chapin is not an element of the Printers 130, 132, 134. Instead the driver 100 is part of the PC 100.

In reply, Examiner makes it clear in the Office action that driver 100 is part of PC 100 and PC 100 is part of the printing apparatus.

b. Regarding Claim 7, Applicant argues that the applied reference fails to disclose confirming a model index designation command **during** a manufacturing operation.

In reply, The claims does not state that the confirmation of the model index designation command is done during a manufacturing operation. Instead the claim claims that the designation command is designated during a manufacturing operation but not the confirmation. Examiner reads the claims as the confirmation is done by the user after manufacturing. Please look at sections 0033, 0034 and 0035 of applicant own specification for support of examiners arguments.

Chapin discloses clearly that the model designation is done during manufacturing operation. **(Looking at Section 0020 , the user only selects drivers for its corresponding model of printer such as Xerox Phaser 4400, however the designation that the driver is configured for that particular printer is done during a manufacturing operation).**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKWASI M. SARPONG whose telephone number is (571)270-3438. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Akwasi M Sarpong/

Examiner, Art Unit 2625

Application/Control Number: 10/826,299

Page 16

Art Unit: 2625

12/21/2010